UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,767	02/01/2005	Toni Stadelmann	122588	1683

25944 7590 11/05/2008

OLIFF & BERRIDGE, PLC
P.O. BOX 320850
ALEXANDRIA, VA 22320-4850

EXAMINER	
YOUSEFI, SHAHROUZ	
ART UNIT	PAPER NUMBER
2432	
MAIL DATE	DELIVERY MODE
11/05/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/522,767	STADELMANN ET AL.	
	Examiner	Art Unit	
	SHAHROUZ YOUSEFI	2432	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9 and 11-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-9 and 11-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 February 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to communications: application, filed 02/01/2005; amendment filed 07/30/2008.

2. Claims 1, 3-9, 11-16 are pending in the case. Claims 2 and 10 are canceled by applicant.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 3-9 and 11-16 have been considered but are not persuasive.

4. Applicants contend Haverinen does not teach that a wireless internet provider authenticating directly with an HLR and/or VLR. The Examiner respectfully disagrees. Haverinen discloses that the home GSM network stores customer information, such as authentication codes and user identity. Typically, this information is stored in a GSM Home Location Register (HLR) of an MSC. The GSM telecommunications network operator provides the IP based authentication and charging interface for one or several WISP operators, possibly also or only for corporate access solutions, col. 19, lines 60-67 and also, the MSC forwards the authentication request to the home HLR. col. 21, lines 45-50. Hence, Haverinen teaches authenticating with HLR.

5. Applicants contend Haverinen has no need to generate SS7/MAP function because the GAGW hides the cellular infrastructure from the PAC of the WISP. Signaling System 7 (SS7) is an international standard and well known in the art. Its main purpose is to set up and tear down telephone calls. Other uses include number

translation, prepaid billing mechanisms, short message service (SMS), and a variety of other mass market services. Haverinen doesn't explicitly discloses SS7, but it is well known that in GSM network a BSS (base station subsystem) is connected to the MSC (mobile switching center) which can access registers such as a HLR (home location register) using a SS7 interface. Hence, applicant's argument is not persuasive.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 3-9 and 11-16 are rejected under 35 U.S.C. 102 (e) as being anticipated by Haverinen et al. (US 7,107,620) hereinafter Haverinen.

8. With respect to claim 1, Haverinen discloses a method for automatic roaming between heterogeneous WLANs (in WLAN, the roaming from one WLAN hot spot to another is referred to as WLAN roaming service, col. 18, lines 41-43) and/or GSM/GPRS/UMTS networks (the actual type of the telecommunications network is irrelevant. GSM is used as an example, but the network type could as well be Universal Mobile Telecommunication System (UMTS) or GSM with General Packet Radio Service (GPRS), col. 9, lines 56-60), comprising: requesting access, via a mobile IP node, to a WLAN at an access point, a basic service area of the WLAN including one or more access points assigned to an access server (a local connection between the mobile node and a mobile station, col. 4, lines 29-30); authenticating, via a wireless interface within the basic service area of the WLAN, the mobile IP node requesting access to the

WLAN (authentication of a mobile node connecting to a mobile IP (Internet Protocol) network, col. 1, lines 7-9); and transmitting from the mobile IP node, upon request from the access server, an IMSI stored on a SIM card of the mobile IP node to the access server, the IMSI of the mobile IP node being stored in a database of SIM-RADIUS module ("mobile nodes are identified by an International Mobile Subscriber Identity (IMSI)", col. 10, lines 8-10, and "providing the mobile node with a mobile node identity and a shared secret specific to the mobile node identity and usable by a telecommunications network", col. 4, lines 53-55), wherein, based on the IMSI, a logical IP data channel of the WLAN is user-specifically supplemented towards corresponding GSM data for signal and data channels of a GSM network by means of information stored in a SIM user database (The IMSI is transmitted in mobile IP messages as a Network Access Identifier (NAI)... this allows recognizing the telecommunications network directly from the NAI, col. 10, lines 15-25), by means of a SIM gateway module, to perform an authentication of the mobile IP node, necessary SS7/MAP functions are generated based on the GSM data ("Subscriber Identity Module (SIM) cards normally used for authenticating GSM subscribers", col. 9, lines 50-51 and "a subscriber identity module (SIM) as used in a separate mobile ... IP network also includes a special security server (SS), to which a message about a new user is transmitted when subscriber attaches to the IP network", col. 2, lines 32-56), by means of the SIM user database and the SIM gateway module, the SIM-RADIUS module performs the authentication of the mobile IP node at an HLR or a VLR of the GSM network, based on the IMSI of the SIM card of the mobile IP node (the roaming user may rely on his

customer relationship with his home GSM telecommunications network in order to provide authentication and billing in the WLAN, col. 19, lines 39-42), and with successful authentication, (1) an authorization of the mobile IP node is preformed, a corresponding user profile based on the IMSI being download at the HLR and/or VLR (extracts the IMSI and sends the IMSI with an authentication request to nearest MSC. Next, MSC analyses the IMSI to find out the home HLR of the subscriber indicated by the IMSI. Then, the MSC forwards the authentication request to the home HLR. col. 21, lines 45-50), (2) the mobile IP node receives a corresponding entry in a customer database of the access server (User's billing record, see table 3), and (3) the WLAN is released for use by the mobile IP node (if the PAC receives a positive acknowledge message ACK confirming successful authentication, it completes the authentication by opening the access to the Internet, col. 22, lines 9-13.

9. With respect to claim 3, Haverinen discloses in authenticating the mobile IP node, the IMSI stored on the SIM card of the mobile IP node is only used up to one or more of the first authentication stages then replaced by a generated temporary IMSI (Otherwise, a temporary user ID is allocated to the MT identified by the IMSI and the subscriber's data (IMSI and corresponding user ID) is stored (block 619) in a record of a database, col. 26, lines 6-9).

10. With respect to claim 4, Haverinen discloses authenticating the mobile IP node is performed by means of an extensible authentication protocol (FIG. 16 illustrates procedure in an authentication system according to an embodiment of the invention.

The authentication uses the Extensible Authentication Protocol (EAP), col. 30, lines 5-8).

11. With respect to claim 5, Haverinen discloses a data stream of the mobile IP node is directed via a mobile radio network service provider during access to the WLAN from the access point (FIG. 1 shows a communication system 10 comprising a mobile IP network MIP having an IP networking MIP...Wireless LAN adapter for communicating with a radio access point over a WLAN radio channel, col. 11, lines 3-12).

12. With respect to claim 6, Haverinen discloses based on authenticating by means of the IMSI, the mobile network service provider issues a corresponding service authorization for use of different services or performs billing of a used service (A GSM/GPRS -SIM based user mobility management functionality (user authentication and billing) can be used for public WLAN access zone authentication and billing functions. The SIM based authentication provides a relatively trustworthy verification of the subscriber's identity (authentication) for charging of the use. The GSM core GSMCORE provides roaming services for a GSM mobile station roaming between various operator networks..., col. 19, lines 4-21).

13. With respect to claim 7, Haverinen discloses the SIM user database is connected to a sync module and a sync database for changing or deleting existing user datasets or for inserting new user datasets, a comparison of databases being carried out periodically or initiated by changes in the sync database or through failure of the SIM user database (Then the GAGW updates (block 659) the user information in the database and stores (block 665), col. 27, lines 10-11).

14. With respect to claim 8, Haverinen discloses by means of a clearing module for billing, billing records of the heterogeneous WLANs are synchronized with the user data and processed based on GSM-Standard TAP (In the system of FIG. 7, the home operator stores the charging records and sends the bill to the user. The WISP generates a billing record describing the billed services. The billing can be based on any of the known principles or combination of them, for example on flat rate, usage time, number of packets or access bandwidth. The GSM network (GAGW) transmits the WISP originated records to the existing GSM billing system, col. 20, lines 14-21).

15. Claims 9-16 differ from claims 1-8 only in that claims 1-8 are method claims whereas, claims 9-16 are system claims. Thus, claims 9-16 are analyzed as previously discussed with respect to claims 1-8 above.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Choi (US 5,991,619) discloses a MAP provider system for processing SS7.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHAHROUZ YOUSEFI whose telephone number is (571) 270-3558. The examiner can normally be reached on Monday-Thursday 9:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. Y./
Examiner, Art Unit 2432

/Gilberto Barron Jr/
Supervisory Patent Examiner, Art Unit 2432